

CLAIMS

1. A timing generation circuit comprising:

a timing memory containing predetermined timing

5 data; and

a counter for loading timing data output from the timing memory and outputting a pulse signal at a timing indicated by the timing data,

the timing generation circuit further comprising

10 load data switching means for dividing a memory region of the timing memory, selecting one or a plurality of timing data output from the divided memory regions, and loading the selected one or plurality of timing data in the counter to thereby output the pulse signal of one timing indicated
15 by the one or plurality of timing data.

2. The timing generation circuit according to

claim 1, wherein the load data switching means divides the memory region of the timing memory in an address direction
20 by switching, links a plurality of timing data output from the divided memory regions in a data bit width direction, and loads these data as one timing data in the counter.

3. The timing generation circuit according to

25 claim 1 or 2, wherein the load data switching means comprises:

an address selection circuit which designates one or a plurality of addresses of the timing memory by switching and which outputs one or a plurality of timing
30 data stored in the corresponding one or plurality of

addresses; and

a load data switching circuit which loads the one timing data as such in one counter, when one timing data is output from the timing memory by switching, and which loads the plurality of timing data in a plurality of cascaded counters, when a plurality of timing data are output from the timing memory by switching, to thereby output the pulse signal of one timing indicated by the one or plurality of timing data.

4. The timing generation circuit according to claim 3, wherein the address selection circuit divides one designated address by switching to thereby designate N (N is a natural number) addresses, and outputs N timing data from the timing memory, and

the load switching circuit loads the N timing data in N cascaded counters by switching to thereby output the pulse signal of one timing indicated by the N timing data.

5. The timing generation circuit according to claim 1, wherein the load data switching means divides the memory region of the timing memory in a data bit width direction by switching, selects one timing data from the respective timing data output from the divided memory regions, and loads the data in the counter.

6. The timing generation circuit according to claim 1 or 5, wherein the load data switching means comprises:

a data division circuit which divides the timing

data stored in one address of the designated timing memory into a plurality of timing data and which outputs the plurality of divided timing data by switching or which outputs one timing data among the plurality of divided timing data; and

a load data switching circuit which loads the plurality of timing data in a plurality of cascaded counters, when the plurality of divided timing data are output from the timing memory by switching, and which loads the one timing data as such in one counter, when one divided timing data is output from the timing memory by switching, to thereby output a pulse signal of one timing indicated by the plurality of or one divided timing data.

7. The timing generation circuit according to claim 6, wherein the data division circuit divides one timing data stored in one designated address into N data, inputs the data, and further designates and outputs some or all of the N divided timing data, and

the load switching circuit loads the N divided timing data in the corresponding N counters, and thereby outputs a pulse signal of the timing indicated by N timing data per address.

8. A semiconductor test device, which inputs a predetermined test pattern signal into a device under test constituting a test object and which compares a response output signal output from this device under test with a predetermined expected pattern signal to thereby judge whether or not the device under test is satisfactory, the

semiconductor test device further comprising:

a timing generation circuit which outputs a reference clock signal of the test pattern signal as a delay clock signal delayed by a predetermined time,

5 the timing generation circuit comprising: the timing generation circuit according to any one of claims 1 to 7.